
JOURNAL CLUB

The Leonid Meteor Storms

Observed from 39,000 ft

by

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ABSTRACT

When life started its roots on our planet, Earth was a different place. Mostly covered in oceans and with active vulcanism, the sky looked like it did 2002 November 19, when the Leonid shower rained meteoroids down on Earth. To study those Leonid meteor storms, Astronomer Dr. Peter Jenniskens had arranged two research aircraft, one from NASA and one from USAF, to provide best viewing of the storms for an international team of 38 researchers from seven countries. One of those participants was Dr. Hans Stenbaek-Nielsen of the University of Alaska's Geophysical Institute, who operated a high frame-rate camera. At the time of the storms, the team was on its way from Spain to Nebraska for a 10 hour night time flight with the full Moon low in the sky and the radiant of the shower at high elevation. This final mission concluded the "Leonid Multi-Instrument Aircraft Campaign" project. The talk will discuss the shower prediction models, the 2002 Leonid MAC mission and its research objectives, and what we have learned from this last airborne campaign to study meteors, for its secrets about the path traveled by life's precursor molecules. Dr. Jenniskens will show video of the storm with a backdrop of aurora and will be glad to hear your own experiences watching the Leonid storms.

Friday, November 14, 2003
Elvey Bldg. Globe Room
3:45 pm